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WASHINGTON STATE DEPARTMENT OF
Natural Resources

COUNTY OR MUNICIPALITY APPROVAL FOR SURFACE MINING (Form SM-6)

NAME OF COMPANY OR INDIVIDUAL APPLICANT(S)
Same as name of the exploration permit holder. *(Type or print in ink.)*

Mr. Dale DeFoor

MAILING ADDRESS

800 Indian Lake Drive
Ellensburg, Wa 98926

Telephone (509) 929-0449

TOTAL ACREAGE AND DEPTH OF PERMIT AREA
(Include all acreage to be disturbed by mining, setbacks, and buffers, and associated activities during the life of the mine.) *(See SM-8A.)*

Total area disturbed will be 101 acres

Maximum vertical depth below pre-mining topographic grade is 10 feet

Maximum depth of excavated mine floor is 1770 feet relative to mean sea level

COUNTY Kittitas

No attachments will be accepted. Legal description of permit area:

1/4	1/4	Section	Township	Range
SE	SE	8	17 N	20E WM
NE	NE	17	17 N	20E WM
Portions	NW	16	17 N	20
Portions	NE	16	17 N	20E WM
NE	SE	16	17 N	20E WM

Proposed subsequent use of site upon completion of reclamation

Agriculture, wildlife habitat and/or single family residences. Subsequent use will comply with the Kittitas County Comprehensive Plan and Kittitas County Zoning Code.

Signature of company representative or individual applicant(s)	Name and title of company representative *(please print)*	Date signed
David V. Taylor	David Taylor, Consultant	10-1-08

TO BE COMPLETED BY THE APPROPRIATE COUNTY OR MUNICIPALITY:

Please answer the following questions 'yes' or 'no'.

	Yes	No
1. Has the proposed surface mine been approved under local zoning and land-use regulations?	✓	
2. Is the proposed subsequent use of the land after reclamation consistent with the local land-use plan/designation?	✓	

When complete, return this form to the appropriate Department of Natural Resources regional office.

Name of planning director or administrative official *(please print)*

Dan Valoff

Signature

Dan Valoff

Title *(please print)*

Staff Planner

Address

Kittitas County CDS
411 N. Ruby St
Ellensburg, WA 98926

Telephone	Date	FOR DEPARTMENT USE ONLY:	DNR Reclamation Permit No.
(509) 962-7506	10-1-08		70-013122

WASHINGTON STATE DEPARTMENT OF
Natural Resources

APPLICATION FOR RECLAMATION PERMIT
FORM SM-8A

Check appropriate box(es): ☒ new permit ☐ revision of existing permit ☐ transfer of permit ☐ expansion

NOTE: Do not attempt to complete this form until you have carefully read the accompanying instruction document (SM8AINST.PDF). Do not attempt to use this form as an MS Word Template unless you are familiar with the use of templates in MS Word.

1. NAME OF APPLICANT/PERMIT HOLDER(S)
Dale DeFoor, Landowner
David Taylor, Agent for the Applicant

2. MAILING ADDRESS
Dale DeFoor
800 Indian Lake Drive
Ellensburg, WA 98926

David Taylor
1661 Beane Rd
Moxee, WA 98936

3. Telephone DeFoor (509) 929-0449 Taylor (509) 949-6445
UBI No.

4. NAME OF MINE
DeFoor

5. Street address and milepost of surface mine
Glover Road – Milepost 1

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6. Distance (miles) **Approximately 3 miles**

7. Direction from **East**

8. Nearest community **City of Kittitas**

9. COUNTY **Kittitas County**
No attachments will be accepted. Legal Description of permit area:

1/4	1/4	Section	Township	Range
SE	SE	8	17 N	20 E WM
NE	NE	17	17 N	20 E WM
Portions	NW	16	17 N	20 E WM
Portions	NE	16	17 N	20 E WM
NE	SE	16	17 N	20 E WM

10. TOTAL ACREAGE OF PERMIT AREA APPLIED FOR
(include all acreage to be disturbed by mining, setbacks, buffers, and associated activities during the life of the mine.)
101 acres

11. Do you or any person, partnership, or corporation associated with you now hold, or have you held, a surface mining operating or reclamation permit? ☐ yes ☒ no

If you answered yes to the above, please list:

Permit Number	Active Operation?		Reclamation current/complete?	
	Yes	No	Yes	No
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐

12. Are all of these mines now in compliance with RCW 78.44, WAC 332-18, and conditions of the permits? ☒ yes ☐ no

13. Have you ever had a surface mine operating or reclamation permit revoked? ☐ yes ☒ no

Have you ever had a reclamation security forfeited? ☐ yes ☒ no

If you answered yes to either of the above, list the permit number(s):

14. Type of proposed or existing mine: ☐ pit ☐ quarry
Material(s) to be mined: ☒ sand and gravel ☒ rock or stone ☐ clay ☐ metal ☐ limestone ☐ silica
☒ other **Topsoil**

Deposit type: ☒ glacial ☐ river floodplain (alluvial) ☐ river channel deposits ☐ talus ☐ bedrock ☐ lode ☐ unknown ☒ other **silt**

15. Total Acreage and Depth of Permit Area:
(Include all acreage to be disturbed by mining, setbacks, buffers, and associated activities during the life of the mine.) (See Form SM-6.)

Total area disturbed will be **77.6** acres.
Area to be disturbed in next 36 months will be approximately **22** acres.

Maximum vertical depth below pre-mining topographic grade is **10** feet.
Maximum depth of excavated mine floor is **1770** feet relative to mean sea level

16. Expected start date of mining **October 1, 2008**

17. Estimated number of years **20**

18. Total quantity to be mined over life of mine (estimated): **60,000 to 90,000** ☐ tons, or ☒ cu yds

19. Estimated annual production: **5,000 to 10,000** ☐ tons, or ☒ cu yds

20. Subsequent land use: ☐ industrial ☐ commercial ☐ residential ☐ agricultural ☐ forestry ☒ wetlands and lakes
☒ Other **Riparian and Upland Wildlife Habitat**

Reclaimed elevation of floor of mine: **1,770-1,890** feet relative to mean sea level

Reclaimed elevation is shown on cross sections? ☒ yes ☐ no

Subsequent land use is compatible with County or Municipal comprehensive plan? ☒ yes ☐ no

County or Municipality Approval for Surface Mining (Form SM-6) attached? ☒ yes ☐ no

SEPA Checklist required? ☒ yes ☐ no

If any answers are no, explain: **The reclamation plan includes the creation of a variety of topographical elevations and wet areas (i.e. man-made ponds, wetlands, slews, and drains) to create wildlife habitat. Topography will be designed to compliment the upland areas. Upon completion of the Final Reclamation Plan, a topographical survey will be submitted to the Department.**

21. Application fee for a new reclamation permit is herewith attached? ☒ yes ☐ no

CHECKLIST OF RECLAMATION STANDARDS

22. SEGMENTAL RECLAMATION

Permit area has been divided into segments for mining and a mining schedule has been developed? ☒ yes ☐ no
If no, explain:

Permit area has been divided into segments for reclamation and a reclamation schedule has been developed? ☒ yes ☐ no
If no, explain:

23. SITE PREPARATION

23A. Permit and Disturbed Area Boundaries

Boundary of the permit area has been marked on the ground with permanent boundary markers? ☒ yes ☐ no
Explain boundary markers: **Steel T-posts, painted florescent orange at the top, will be spaced at 50' intervals marking the boundary of the permit.**

23B. Saving Topsoil, Subsoil, and Overburden for Reclamation

Thickness of topsoil is **2** feet
Thickness of subsoil is **1-15** feet
Depth to bedrock is **15** feet
Total volume of topsoil is **22,500** cubic yards
Total volume of subsoil is **67,500** cubic yards
Volume of stored topsoil/subsoil is **0** cubic yards and will require **0** acres for storage. ***See Narrative**

Storage areas are shown on maps and have been marked on the ground with permanent boundary markers? ☒ yes ☐ no

Topsoil will be salvaged? ☒ yes ☐ no
If no, explain:

Topsoil and overburden will be moved to reclaim an adjacent depleted segment? ☒ yes ☐ no
If no, explain:

Before materials are moved, vegetation will be cleared and drainage planned for soil storage areas? ☐ yes ☒ no
If no, explain: **The subject property is located in an area which receives less than 11 inches of precipitation annually; therefore little drainage planning is necessary. The applicant will utilize silt fences, matting and best management techniques to control drainage. In addition, reclaimed areas will include a variety of "wet" areas (i.e. wetlands, man-made ponds, slews, etc.) to capture irrigation tail-water for wildlife habitat. (See Narrative)**

Soil storage areas will be stabilized with vegetation to prevent erosion if materials will be stored for more than one season? ☐ yes ☒ no
If no, explain: **Soil will be extracted and loaded on an "as needed" basis; therefore storage should not be necessary.**

23C. Setbacks and Screens

Maximum depth of the mine will be **10** feet from **1,850** feet *(highest)* to **1,750** feet *(lowest)* elevation relative to mean sea level..

The setback for this site will be **20** feet wide.

Is a permanent, undisturbed buffer planned for this site? ☒ yes ☐ no
If no, explain:

Setbacks are shown on maps and have been marked on the ground with permanent boundary markers? ☒ yes ☐ no
If no, explain:

CHECKLIST OF RECLAMATION STANDARDS

Does this site have a backfilling plan that addresses the protection of adjacent property and how the final, stable slopes are to be achieved? ☐ yes ☒ no

If no, explain: **The proposed mining activity would remove soil from the site, create riparian habitat and improve upland habitat throughout the site. Mining activities will result in relatively shallow surface disturbance.**

23D. Buffers to Protect Streams and Flood Plains

If yes, see "Additional Information Requirements for Flood Plain Mines." This document is included in the SM8AINST.PDF file.

A stream buffer of at least 200 feet has been marked on the ground with permanent boundary markers? ☐ yes ☒ no

A buffer of at least 200 feet from the 100-year flood plain has been marked on the ground with permanent boundary markers? ☐ yes ☒ no

If no, explain: **The subject property is not located in a regulatory floodplain according to the FIRM Maps on file with Kittitas County. In addition, no natural waterbodies are located onsite.**

Copy of Shoreline Permit from local government or the Dept of Ecology is attached? **N/A** ☐ yes ☒ no

Hydraulic Project Approval from the Department of Fish and Wildlife is attached? **N/A** ☐ yes ☒ no

23E. Conservation Buffers

Conservation buffers will be established for the following purpose(s): (*Check all that apply*)

☐ unstable slopes ☒ wildlife habitat ☒ water quality ☐ other _____

Describe the nature and configuration of the conservation buffer(s):

The subject property contains degraded habitat. The proposed activities will result in the creation of riparian habitat around the man-made ponds, wetlands, swales, etc. and improve upland habitat conditions.

Conservation setbacks are shown on maps and have been marked on the ground with permanent boundary markers? ☐ yes ☒ no

23F. Ground Water

High water table depth is **12 to 15** feet ☐ relative to mean sea level, ☒ below original surface, or ☐ unknown.

Low water table depth is **15** feet ☐ relative to mean sea level, ☒ below original surface, or ☐ unknown.

Annual fluctuation of water table is from **15** feet on **approximately December 1st** to **12** feet on **June 1st**.

Direction of ground water flow: **Irrigation tail-water flows east to west.**

Are well logs attached? ☐ yes ☒ no

Is the aquifer perched? ☐ yes ☒ no

Is the shallowest aquifer: ☐ confined ☒ unconfined

The site will be mined: ☐ wet ☒ dry ☐ both

Describe mining method: **Ripping, dozing, grading, and loading of soil.**

The site is in a: **N/A**

☐ critical aquifer recharge area ☐ sole source aquifer ☐ public water supply watershed

☐ wellhead protection area ☐ special protection area ☐ designated aquifer protection area

Ground water study attached? ☐ yes ☒ no

If yes, see "Additional Information Requirements for Hydrologically Sensitive Areas." This document is included in the SM8AINST.PDF file.

If no, explain: **Mining activities will result in relatively shallow surface disturbance. No hydrologically sensitive areas have been identified on the subject property. The project will not capture or utilize any groundwater.**

23G. Archeology

Are archeological/cultural resource sites present? ☐ yes ☒ no

If **yes**, describe how you will protect these resources: **No known archeological resources are on the subject property. Best Management Practices will be utilized if any archeological resources are discovered.**

24. MINING PRACTICES TO FACILITATE RECLAMATION

24A. Soil Replacement

Topsoil will be saved? ☒ yes ☐ no
If no, explain:

Up to 4 feet of topsoil and (or) subsoil will be restored? ☐ yes ☒ no
If no, explain: **Soil resources are 10 to 15 feet deep, but no mining activities are planned for below 10 feet. Reclamation of the site will be segmented and include man-made ponds, swales drains, and a variety of topographical elevations. Segments will be stripped of soil to a depth of five feet and then covered with 5 to 6 inches of amendments, tilled to a depth of two feet and seeded with wheat. After the soil additives decompose (four to five years) the mining segment will be stripped a second time to a depth of 2 to 3 feet. The segment will then be covered with 5 to 6 inches of amendments, tilled to a depth of two feet and seeded with wheat. After the soil additives decompose (four to five years) the mining segment will be stripped a third time to a depth of 2 to 3 feet. Final reclamation activities will then be initiated.**

Topsoil will be restored and seedbeds prepared as necessary to promote effective revegetation and to stabilize slopes and mine floor? ☒ yes ☐ no
If "yes" give details, if "no", explain: **The reclamation and revegetation plans include placement of mixed soils and reseeding of the created riparian and upland areas. (See narrative)**

Subsoil will be replaced to an approximate depth of **1-3** feet on the pit floor and a depth of **1-3** feet on slopes.

Topsoil will be replaced to an approximate depth of **1** feet on the pit floor and a depth of **1** feet on slopes.

Topsoil will be distributed evenly over the site? ☐ yes ☒ no
If no, explain: **The site will be graded to create a variety of topographical features, including man-made ponds and wetlands. This will necessitate an uneven distribution of topsoil and mulch throughout the site. (See narrative)**

If topsoil is in short supply, it will be strategically placed in depressions and low areas in adequate thickness to conserve moisture and promote revegetation? ☐ yes ☒ no
If no, explain: **The site will be graded to create a variety of topographical features, including man-made ponds and wetlands. Natural depressions will be enhanced to create wet areas.**

Topsoil will be moved when conditions are not overly wet or dry? ☐ yes ☒ no
If no, explain: **Soil is the primary material being generated through the mining activities, which is then used as part of a commercial nursery business. Although every attempt will be made to limit the movement of soil when conditions are not overly wet or dry, some movement of the material may be necessary during those times due to consumer demand. Best Management Practices will be utilized to minimize potential impacts during overly wet or dry times.**

Topsoil will be imported? ☒ yes ☐ no
If yes, describe source. If no, explain: **Some topsoil and mulch will be imported from various locations through Kittitas County. This soil will be mixed with mulch material and spread throughout the site. (See narrative)**

Synthetic topsoil made from compost, biosolids, or other amendments will be used and (or) made on site to supplement existing topsoil? ☒ yes ☐ no
If yes, explain: **Segments will be stripped of soil to a depth of five feet and then covered with 5 to 6 inches of amendments, tilled to a depth of two feet and seeded with wheat. After the soil additives decompose (four to five years) the mining segment will be stripped a second time to a depth of 2 to 3 feet. The segment will then be covered with 5 to 6 inches of amendments, tilled to a depth of two feet and seeded**

with wheat. After the soil additives decompose (four to five years) the mining segment will be stripped a third time to a depth of 2 to 3 feet. Final reclamation activities will then be initiated.	
Materials such as till, loess, and (or) silt are available on site that could be used to supplement topsoil for reclamation. If yes, explain: **The main purpose of the proposed mining activities is to generate topsoil for landscaping purposes. Soil used for reclamation activities will be mixed with amendments to produce topsoil.**	☒ yes ☐ no
Silt from settling ponds or a filter press will be used for reclamation? If yes, explain:	☐ yes ☒ no
Settling pond clay slurries will be pumped or hauled to other segments for reclamation? If yes, explain:	☐ yes ☒ no
Topsoil will be replaced with equipment that will minimize compaction, or it will be plowed, disked, or ripped following placement? If no, explain:	☒ yes ☐ no
Topsoil will be immediately stabilized with grasses and legumes to prevent loss by erosion, slumping, or crusting? If no, explain: **Soil will be extracted and loaded on an "as needed" basis; therefore storage should not be necessary. Upon completion of a mining segment, reclamation activities will begin. Mixed soil will be spread throughout the segment to create a variety of topographical conditions and reseeded with the appropriate mixture. (See narrative)**	☐ yes ☒ no
Topsoil stockpile areas are shown on maps and will be marked on the ground with permanent boundary markers to protect from loss? If no, explain:	☒ yes ☐ no
Segmental topsoil removal and replacement is shown on maps? If no, explain:	☒ yes ☐ no
Topsoil salvage and replacement plan included? If no, explain: **Soil is the primary material being generated through the mining activities. The soil not removed from the site will be mixed with imported topsoil and mulch and spread throughout the project site. (See narrative)**	☒ yes ☐ no
24B. Removal of Vegetation	
Vegetation will be removed sequentially from areas to be mined to prevent unnecessary erosion? If no, explain:	☒ yes ☐ no
Small trees and other transplantable vegetation will be salvaged for use in revegetating other segments? If yes, give details. If no, explain: **Reclamation of mined areas will be replanted with a variety of vegetative species. Upland areas will be planted with wheat and retained for three years and then replanted with native grass and forage species. Riparian areas will be replanted with a variety of native tree species and riparian vegetation. Some large woody debris and other bank stabilization material may be included in the riparian area. (See Narrative)**	☐ yes ☒ no

CHECKLIST OF RECLAMATION STANDARDS

Wood and other organic debris will be:
☒ recycled ☐ removed from site ☒ chipped ☐ burned ☐ buried ☒ used to synthesize topsoil or mulch
☐ other (*explain*)

Solid waste disposal, burning, and land use permits are attached? **N/A** ☐ yes ☒ no

Some coarse wood (logs, stumps) and other large debris will be salvaged for fish and wildlife habitats? ☒ yes ☐ no
If yes, give details. If no, explain: **Large woody debris will be imported and placed in the constructed riparian areas (i.e. man-made ponds, wetlands, swales, etc,). (See Narrative)**

24C. Erosion control for Reclamation

Pit floor will slope at gentle angles toward highwall, sediment retention pond, or proper drainage? ☐ yes ☒ no
If yes, give details. If no, explain: **Because soil is the primary product generated through the mining activities, the maximum mining depth will be 10 feet. Reclamation activities include the creation of a variety of topographical conditions to optimize wildlife habitat.**

Revegetation, sheeting, and (or) matting will be used to protect areas susceptible to erosion? ☒ yes ☐ no
If yes, give details. If no, explain: **Areas susceptible to erosion will be revegetated with native plant and tree species. Silt fencing and/or matting will be utilized to prevent erosion, as needed, on a short-term basis. (See narrative)**

Water control systems used for erosion control during segmental reclamation will:

Divert clean water around pit?	☒ yes	☐ no
Trap sediment-laden runoff before it enters a stream?	☒ yes	☐ no
Result in essentially natural conditions of volume, velocity, and turbidity?	☒ yes	☐ no
Handle a 25-year, 24-hour peak event?	☒ yes	☐ no
(Have you attached calculation?)	☒ yes	☐ no
Be removed or reclaimed?	☐ yes	☒ no

If any answers are no, explain: **Portions of the proposed site will be reclaimed into man-made ponds, slews and other riparian/wetland features. These features will be constructed as reclamation occurs and will not be removed. According to the City of Ellensburg, the standard calculation for a 10-year, 24-hour peak event is one inch. The standard calculation for a 25-year, 24-hour peak event is 1.6 inches.**

Will any water control systems be removed upon final reclamation? ☐ yes ☒ no
If yes, explain:

Water control measure will be established to prevent erosion of setbacks and neighboring properties? ☒ yes ☐ no
If yes, give details. If no, explain: **The site is bonded by the John Wayne Trail and Interstate 90 which create barriers for runoff. In addition, portions of the proposed site will be reclaimed into man-made ponds, slews and other riparian/wetland features.**

Storm-water conveyance ditches and channels will be lined with vegetation or riprap? ☒ yes ☐ no
If yes, give details. If no, explain: **Portions of the proposed site will be reclaimed into man-made ponds, slews and other riparian/wetland features. These areas will be revegetated with plant species suitable for hydric conditions. (See narrative)**

Natural and other drainage channels will be kept free of equipment, wastes, stockpiles, and overburden? ☒ yes ☐ no
If no, explain:

25. RECLAMATION TOPOGRAPHY

25A. Final Slopes

Final slopes will be created using the cut-and-fill method? ☒ yes ☐ no
Explain procedure to be used: **Because soil is the primary product generated from the site, surface disturbance will be limited to the ten feet. Reclaimed areas will be sloped to match surrounding**

topographic surface conditions and include man-made ponds and slews.

Slopes will be created by mining to the final slope using the cut method? ☒ yes ☐ no
Explain procedure to be used: **As soil is removed from the site and replaced with a soil/mulch mixture, the surface area will be graded to match surrounding topographical conditions.**

Slopes will vary in steepness? ☒ yes ☐ no
If no, explain:

Slopes will have a sinuous appearance in both profile and plan view? ☒ yes ☐ no
If no, explain:

Large rectilinear (that is, right angle, or straight, planar) areas will be eliminated? ☒ yes ☐ no
If no, explain:

Where reasonable, tracks of the final equipment pass will be preserved and oriented to trap moisture, soil, and seeds, and to inhibit erosion? ☒ yes ☐ no
If no, explain:

25B. Slope Requirements for Pits and Overburden/Waste Rock Dumps (non-saleable products)

If the mine is a quarry or in hard rock, skip to Quarry section(25C).

Slopes will vary between 2 and 3 feet horizontal to 1 foot vertical or flatter, except in limited areas where steeper slopes are necessary to create sinuous topography and control drainage? ☒ yes ☐ no
If no, explain:

For pits, slopes will not exceed 2 feet horizontal to 1 foot vertical except as necessary to blend with adjacent natural slopes? ☒ yes ☐ no
Give details:

Slope stability analysis required? ☐ yes ☒ no
If yes, see "Additional Information Requirements for Mines with Potentially Unstable or Steep Slopes." This document is included in the SM8AINST.PDF file.
Slope stability analysis provided by N/A

25C. Slope Requirements for Quarries and Hardrock Metal Mines

If mine is a pit in unconsolidated materials covered by Section 25B, go to Section 25D

Check the appropriate box(es)
☐ Slopes will not exceed 2 feet horizontal to 1 foot vertical.
☐ Slopes steeper than 1 foot horizontal to 1 foot vertical are an acceptable subsequent land use as confirmed on Form SM-6.
☐ Hazardous slopes or cliffs are indigenous to the immediate area and already present a potential threat to human life. Photo and maps attached to document presence of cliffs.
☐ Geologic or topographic characteristics of the site preclude slopes being reclaimed at a flatter angle and are an acceptable subsequent land use as confirmed on Form SM-6.

Slope stability analysis required? ☐ yes ☐ no
If yes, see "Additional Information Requirements for Mines with Potentially Unstable or Steep Slopes." This document is included in the SM8AINST.PDF file.
Slope stability analysis provided by

Measures will be taken to limit access to the top and bottom of hazardous slopes? ☐ yes ☐ no

Describe measures, or if no, explain:	
Selective blasting will be used to remove benches and walls and to create chutes, buttresses, spurs, scree slopes, and rough cliff faces that appear natural? Describe procedures, or if no, explain:	☐ yes ☐ no
Reclamation blasting will be used to reduce the entire highwall to a scree or rubble slope less than 2 feet horizontal to 1 foot vertical? Blasting plan is attached? If no, explain:	☐ yes ☐ no ☐ yes ☐ no
Access to benches will be maintained for reclamation blasting? If no, explain:	☐ yes ☐ no
Small portions of benches will be left to provide habitat for raptors and other cliff-dwelling birds?	☐ yes ☐ no
25D. Backfilling	
Slopes will require backfilling? Depth of backfilling is 0 feet. Slope stability compaction analysis required? Compaction analysis provided by **Not applicable**	☐ yes ☒ no ☐ yes ☒ no
Backfilling plan and (or) permits are attached? If no, explain: **Reclamation activities will result in a variety of topographical elevations, man-made ponds, drains, and swales. Some of these areas may necessitate backfilling in order to create optimal habitat conditions. (See narrative)**	☐ yes ☒ no
Backfilling will be done with overburden material after topsoil has been separated? If no, describe composition and source of backfill material: **Soil is the primary product generated through the proposed mining activities. Any soil retained onsite will be mixed with imported soils and mulch and spread throughout the site. (See narrative)** Explain method of placement of fill: **Amended soils will be placed with dump trucks and loaders to achieve desired topographical conditions and optimal habitat conditions.**	☐ yes ☒ no
Locations of stockpiles are shown on maps and will be marked on the ground with permanent boundary markers?	☒ yes ☐ no
Will backfill be imported? If yes, give volumes needed to meet reclamation plan: **Amendments will be mixed with soil at approximately 10% in the top foot of the soil.**	☒ yes ☐ no
Areas to be backfilled are shown on maps? If no, explain: **Once the soil is removed from a mining segment, reclamation activities will begin. Any disturbed areas which necessitate re-contouring will be identified at that time in order to best match the surrounding area.**	☐ yes ☒ no
All grading/backfilling will be done with clean, inert, non-organic solids? If yes, give details. If no, explain: **Amendments will be added to the topsoil prior to spreading throughout the site. (See narrative)**	☐ yes ☒ no
Backfilled slopes will be compacted? If yes, give details. If no, explain: **Areas will be graded to achieve desired topographical conditions. These areas will not be compacted in order to promote the growth of vegetative material. (See narrative)**	☐ yes ☒ no

CHECKLIST OF RECLAMATION STANDARDS

Will you be backfilling into water? If yes, is slope stability analysis attached? **N/A** If yes, describe method: **N/A**	☐ yes ☒ no ☐ yes ☒ no
25E. Mine Floors	
Flat areas will be formed into gently rolling mounds? If yes, give details. If no, Explain: **Reclaimed areas will be graded to match the surrounding landscape and to create a variety of topographical conditions. In addition, man-made ponds, wetlands and slews will be created during the reclamation process. (See narrative)**	☒ yes ☐ no
Mine floor will be gently graded into sinuous drainage channels to preclude sheetwash erosion during intense precipitation? If yes, give details. If no, explain: **Disturbed areas will be filled and graded to create a variety of topographical conditions to match the surrounding landscape. In addition, reclamation activities will create man-made ponds, wetlands, slews, and other "wet" areas. (See narrative)**	☒ yes ☐ no
Mine floor and other compacted areas will be bulldozed, plowed, ripped, or blasted to foster revegetation? If yes, give details. If no, explain: **Compacted areas will be plowed and ripped to promote revegetation of the disturbed areas. In addition, man-made ponds, wetlands, slews, and other "wet" areas will be created and seeded to promote riparian habitat. (See narrative)**	☒ yes ☐ no
25F. Lakes, Ponds, and Wetlands	
Is water currently present in the area or will the mining penetrate the water table? ***If no, go to Section 25G.***	☒ yes ☐ no
Reclaimed areas below the permanent low water table in soil, sand, gravel, and other unconsolidated material will have a slope no steeper than 1.5 feet horizontal to 1 foot vertical? If yes, give details. If no, explain: **Reclamation activities include the creation of man-made ponds that will be gently sloped to promote the growth of a variety of pond vegetation. Irrigation tail-water flows through the property, but no natural water bodies are located within the proposed project boundaries.**	☒ yes ☐ no
If not already present, soils, silts, and clay-bearing material will be placed below water level to enhance revegetation? If yes, give details. If no, explain: **Soils used in conjunction with reclamation activities will be placed to enhance revegetation of upland and created riparian areas. (See narrative)**	☒ yes ☐ no
Some parts of pond and lake banks will be shaped so that a person can escape from the water? If yes, give details. If no, explain: **Reclamation activities include the creation of man-made ponds that will be gently sloped and shaped to allow a person to escape from the water. It should be noted, public access is not contemplated for the completed project.**	☒ yes ☐ no
Armored spillways or other measures to prevent undesirable overflow or seepage will be provided to stabilize bodies of water and adjacent slopes? If yes, give details. If no, explain: **The proposed man-made ponds and slews will be designed to capture irrigation tail-water which flows through the site. Because the site is relatively flat and irrigation tail-water flows through the site, no spillways are needed.**	☐ yes ☒ no
Wildlife habitat will be developed, incorporating such measures as: Sinuous and irregular shorelines? Varied water depths? Shallow areas less than 18 inches deep? Islands and peninsulas? Give details: **The proposed man-made ponds and slews will be designed to promote wildlife habitat. Large woody debris will be incorporated in appropriate areas and riparian vegetation will be planted to provide food and cover for wildlife.**	 ☒ yes ☐ no ☒ yes ☐ no ☒ yes ☐ no ☒ yes ☐ no

CHECKLIST OF RECLAMATION STANDARDS

Ponds or basins will:

Be located in stable areas?	☒ yes	☐ no
Have sufficient volume for expected runoff?	☒ yes	☐ no
Have an emergency overflow spillway?	☐ yes	☒ no
Spillways and outfalls will be protected (for example, rock armor) to prevent failure and erosion?	☐ yes	☒ no

If any answers are no, explain: **The subject property is relatively flat reducing the need for armored spillways and outfalls. The proposed man-made ponds will be interconnected with slews/drains to promote wildlife habitat. The slews and drains will be vegetated to provide connective habitat and to slow any overflowing water.**

Proper measures will be taken to prevent seepage from water impoundments that could cause flooding outside the permitted area or adversely affect the stability of impoundment dams or adjacent slopes? ☒ yes ☐ no
If yes, give details. If no, explain: **The site contains no natural waterbodies. The proposed man-made ponds will be designed and located achieve optimal habitat conditions. (See narrative)**

Written approval from other agencies with jurisdiction to regulate impoundment of water is attached? ☐ yes ☒ no
If no, explain: **The man-made ponds created through the reclamation process do not necessitate permits for impoundment of water from irrigation tail-water.**

25G. FINAL DRAINAGE CONFIGURATION

Drainage will be capable of carrying the peak flow of the 25-year, 24-hour precipitation event (*Data are available at DNR Region offices*) ☒ yes ☐ no
If yes, are calculations attached? ☒ yes ☐ no
If yes, give details. If no, explain: **The low precipitation and relatively flat ground creates little probability for runoff. Any runoff will be captured by the created riparian areas (i.e. man-made ponds, wetlands, slews, etc.).**

Drainages will be constructed on each reclaimed segment to control surface water, erosion, and siltation? ☒ yes ☐ no
Clean runoff is directed to a safe outlet? ☒ yes ☐ no
If either yes, give details. If no, explain: **The proposed man-made ponds and slews will be sited to capture any potential runoff. The goal is to create integrated upland/riparian habitat conditions.**

Are these shown on maps? ☒ yes ☐ no

The grade of ditches and channels will be constructed to limit erosion and siltation? ☒ yes ☐ no
If yes, give details. If no, explain: **The riparian areas constructed during reclamation will be designed to capture runoff in the reclaimed area. These areas will be connected to create connective habitat. (See narrative)**

Natural-appearing drainage channels will be established upon reclamation? ☒ yes ☐ no
If yes, give details. If no, explain: **The proposed man-made ponds will be interconnected utilizing drainage channels and slews to create connective habitat. (See narrative)**

26. SITE CLEANUP AND PREPARATION FOR REVEGETATION

26A. Dealing with Hazardous Materials

Hazardous materials are present at the mine site? ☐ yes ☒ no
If no, go to Section 25B

The final ground surface drains away from any hazardous natural materials? **N/A** ☐ yes ☐ no
If yes, give details. If no, explain: **N/A**

Plan for handling hazardous mineral wastes indigenous to the site is attached? **N/A** ☐ yes ☐ no
If no, written approval from all appropriate solid waste regulatory agencies attached? **N/A** ☐ yes ☐ no

26B. Removal of Debris

CHECKLIST OF RECLAMATION STANDARDS

All debris (garbage, 'bone piles', treated wood, old mining equipment, etc.) will be removed from the mine site? ☒ yes ☐ no
All sheds, scale houses, and other structures will be removed from the site? ☒ yes ☐ no
If either answer is yes, give details. If no, explain: **All debris and structures will be removed from the site upon completion of the project.**

27. REVEGETATION

The mine site is in: ☒ eastern Washington ☐ western Washington

The mine site is: ☐ wet ☒ dry?

The average precipitation is **approximately 9 inches** per year.

Revegetation will start during the first proper growing season (fall for grasses and legumes, fall or late winter for trees and shrubs) following restoration of slopes? ☒ yes ☐ no
If yes, give details. If no, explain: **Revegetation of some areas has already occurred. Additional plantings will be timed to promote growth. Upland areas will be plowed, seeded with wheat and left for a three year period in order to create a stable root base. After three years, amendments will be spread across the reclaimed area and seeded with a variety of native grass species, shrubs and trees to provide food and cover for wildlife. The revegetation of the riparian areas (i.e. man-made ponds, slews, wetlands, etc.) created through reclamation activities will occur to optimize growth.**

Test plots will be used to determine optimum vegetation plans? ☒ yes ☐ no

The site will not be revegetated because: **N/A**

☐ It is a rural area with a rainfall exceeding 30 inches annually and erosion will not be a problem (requires approval of DNR).

☐ Demonstration plots and areas will be used to show that active revegetation is not necessary.

☐ Revegetation is inappropriate for the approved subsequent use of this surface mine.

Explain:

Documentation is attached? ☐ yes ☒ no

27A. Recommended Pioneer Species

In the Sections below, check the species that will be planted at your mine site:
**** indicates nitrogen-fixing species***

Western Washington Dry Areas

☐ alfalfa*	☐ Lupine*	☐ clover*	☐ orchard grass
☐ cereal rye	☐ perennial rye	☐ colonial bent grass	☐ ponderosa pine
☐ creeping red fescue	☐ red alder*	☐ Douglas fir	☐ shore pine
☐ ground cover	☐ shrubs	☐ other	

Western Washington Wet Areas

☐ birdsfoot trefoil	☐ sedges	☐ cedar	☐ tubers
☐ cottonwood	☐ wetland grasses	☐ creeping red fescue	☐ willow
☐ red alder*	☐ other		

Eastern Washington Dry Areas

☒ alder*	☒ grasses	☒ alfalfa*	☐ juniper
☐ black locust	☐ lodgepole pine	☒ clover	☐ lupine*
☒ deciduous trees	☐ ponderosa pine	☒ shrubs	☐ deep-rooted ground cover
☐ diverse evergreens	☐ other		

Eastern Washington Wet Areas

☒ alder*	☒ cottonwood	☒ poplar	☐ sedges
☐ serviceberry	☐ tubers	☒ willow	
☐ other			

CHECKLIST OF RECLAMATION STANDARDS

Give planting details (stems/acres of trees and shrubs, see Forest Practices manual; lbs/acre of grass, legume, or forb mixture):
Final reclamation of the upland areas will be plowed, seeded with wheat and left for a three year period in order to create a stable root base. After three years, amendments will be spread across the reclaimed area and seeded with a variety of native grass species, shrubs and trees to provide food and cover for wildlife. The revegetation of the riparian areas (i.e. man-made ponds, slews, wetlands, etc.) created through reclamation activities will occur to optimize growth. (See narrative)

Describe weed control plan:
Weeds will be controlled using best management practices.

27B. Planting Techniques

Revegetation at this site will require:

Ripping and tilling?	☒ yes	☐ no
Blasting to create permeability?	☐ yes	☒ no
Mulching?	☒ yes	☐ no
Irrigation?	☒ yes	☐ no
Fertilization?	☒ yes	☐ no
Importation of clay- or humus-bearing soils?	☐ yes	☒ no
Other soil conditioners or amendments?	☒ yes	☐ no

Give details: **Segments will be stripped of soil to a depth of five feet and then covered with 5 to 6 inches of amendments, tilled to a depth of two feet and seeded with wheat. After the soil additives decompose (four to five years) the mining segment will be stripped a second time to a depth of 2 to 3 feet. The segment will then be covered with 5 to 6 inches of amendments, tilled to a depth of two feet and seeded with wheat. After the soil additives decompose (four to five years) the mining segment will be stripped a third time to a depth of 2 to 3 feet. Final reclamation activities will then be initiated. Revegetation activities conducted during final reclamation of the mining segments will be completed using best management practices. Upland areas will be plowed, seeded with wheat and left for a three year period in order to create a stable root base. After three years, amendments will be spread across the reclaimed area and seeded with a variety of native grass species, shrubs and trees to provide food and cover for wildlife. The revegetation of the riparian areas (i.e. man-made ponds, slews, wetlands, etc.) created through reclamation activities will occur to optimize growth. (See narrative)**

Trees and shrubs will be planted in topsoil or in subsoil amended with generous amounts of organic matter? ☒ yes ☐ no
If yes, give details. If no, explain: **Trees and shrubs will be planted in such a way to promote growth and survival. Final reclamation activities will then be initiated. Revegetation activities conducted during final reclamation of the mining segments will be completed using best management practices. Upland areas will be plowed, seeded with wheat and left for a three year period in order to create a stable root base. After three years, amendments will be spread across the reclaimed area and seeded with a variety of native grass species, shrubs and trees to provide food and cover for wildlife. The revegetation of the riparian areas (i.e. man-made ponds, slews, wetlands, etc.) created through reclamation activities will occur to optimize growth. (See narrative)**

Mulch will be piled around the base of trees and shrubs?	☒ yes	☐ no
High quality stock will be used?	☒ yes	☐ no
Trees and shrubs will be planted while they are dormant?	☒ yes	☐ no
Stock will be properly handled, kept cool and moist, and planted as soon as possible?	☒ yes	☐ no
Seeds will be covered with topsoil or mulch no deeper than one-half inch?	☒ yes	☐ no

If any answers are no, explain: **N/A**

28. FINAL CHECKLIST

All required maps are attached (***See Instructions for detailed requirements***)?	☒ yes	☐ no
All required cross-sections are attached (***See Instructions for detailed requirements***)?	☒ yes	☐ no
Geologic map attached (if required)?	☐ yes	☒ no
All documents submitted have the date, the name and address of the permit holder, and the application number on every page of the material?	☒ yes	☐ no
The plan contains predominantly relevant information?	☒ yes	☐ no

CHECKLIST OF RECLAMATION STANDARDS

Have you completed the SM-6 and has it been signed by the local jurisdiction?	☒ yes ☐ no
Have you provided the SEPA checklist?	☒ yes ☐ no
Have you provided a copy of the SEPA Determination (DNS, MDNS, or DS)?	☐ yes ☒ no
Have you attached photographs?	☒ yes ☐ no
Are additional supplemental studies included?	☐ yes ☒ no

If yes, check the appropriate box(es) below:

☐ Archeological ☐ Geohydrologic ☐ Backfill ☐ Slope stability
☐ Topsoil ☐ Flood plain ☐ Conservational ☐ Vegetation
☐ Other

Other permits required? ☐ yes ☒ no

If yes, check the appropriate box(es) below:

☐ Shoreline permit ☐ Water Discharge Permit ☐ Solid Waste Permit
☐ Air Quality Permit ☐ NPDS or General Discharge Permit ☐ Hydraulic Project Approval
☐ Special or Conditional Use Permit ☐ Other

CHECKLIST OF RECLAMATION STANDARDS

When signed by the applicant and approved by the Department of Natural Resources, this document and the associated maps, cross sections, reclamation narrative, and other attachments will be the approved reclamation plan for this permit that the permit holder must follow. Significant variations from the approved reclamation plan may require that a new plan be submitted to the Department for approval.

The applicant shall be considered as the permit holder for this surface mine and shall be responsible for compliance with Chapter 78.44 RCW, Chapter 332-18 WAC, the approved reclamation plan and attachments, and the conditions of the permit if issued by the Department of Natural Resources.

I hereby agree to comply with this plan. *Signature of applicant or company representative*	Name and Title of Company Representative (*Please print*) Dale DeFoor	Date signed 10/13/08

SURFACE OWNERSHIP Give names, addresses, and signatures of all individuals with possessory interest in land. (attach signed copies of this page if more than one) I verify that the applicant has my permission to mine from my land. *Signature of landowner(s)* — *Date Signed* 10/13/08 I hereby verify that I have seen and approved this plan. *Signature of landowner(s)* — *Date Signed* 10/13/08	OWERSHIP OF RIGHTS TO REMOVE MINERALS BY SURFACE MINING Give names, addresses, and signatures of all individuals with rights. (attach signed copies of this page if more than one) I verify that the applicant has my permission to mine this land. *Signature of rights owner(s)* — *Date Signed* 10/13/08 I hereby verify that I have seen and approved this plan. *Signature of rights owner(s)* — *Date Signed* 10/13/08

FOR DEPARTMENTAL USE ONLY

Date accepted	Accepted by:	Title:	Reclamation Permit No.

Comments by Department:

RECEIVED
MAR 0 2 2009
Geology and Earth

RECEIVED
OCT 14 2008
Geology and Earth